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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,350	08/28/2003	Jeffrey J. Norris	2316.1486USC1	6705
7590	07/26/2004		EXAMINER	
Karen A. Fitzsimmons MERCHANT & GOULD P.C. P.O. Box 2903 Minneapolis, MN 55402-0903				HARVEY, JAMES R
			ART UNIT	PAPER NUMBER
			2833	

DATE MAILED: 07/26/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/650,350	NORRIS, JEFFREY J.
Examiner	Art Unit	
James R. Harvey	2833	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 5-5-04.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-14 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-14 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 23 August 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
 a) The translation of the foreign language provisional application has been received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) Notice of References Cited (PTO-892) 4) Interview Summary (PTO-413) Paper No(s). _____.
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) Notice of Informal Patent Application (PTO-152)
 3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) Other: _____

DETAILED ACTION

Continuation Examination

Acknowledgement is made that this is a continuation of application Serial No. 09/939,202, filed August 24, 2001.

Claim Objections

- Claim(s) 1,3,4,8,14 are objected to because of the following informalities:
 - In reference to Claim(s) 4 and 9, concerning the claim limitation “circumscribes or circumscribing the majority of the terminal or main body”, is vague and indefinite. The meaning is not defined in the claims and the known meanings is to encircle or enclose and object (see attached definition from The American Heritage Dictionary). This limitation is not shown in the drawings because nothing wraps around the main body nor is the limitation supported in the specification. For purposes of examination, it is assumed that the language is intended to mean “the contact surface is a shoulder surface integral with the main body”. An examination based on the merits, as best understood, is addressed below.
 - Appropriate response to the above is required.

Claim Rejections - 35 USC § 102

- The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

** Claim(s) 1-7 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Costello et al. (5139446).

-- In reference to Claim(s) 1, Costello shows (cover sheet)

a) a terminal body having a first end 42, a second end 62, and a longitudinal axis extending between the first and second ends,
b) an insertion structure 40 positioned between the first and second ends of the terminal body, the insertion structure including arms (50, 52, 58, and 59) depending from the terminal body and extending in a direction generally parallel to the longitudinal axis of the terminal body, each of the arms including:

- i) a push surface (near the lead line of numeral 51);
- ii) an engagement surface oriented opposite the push surface (see examiner's figure).

-- In reference to Claim(s) 2, the insertion structure has three arms, at least one engagement surface is on at least one of the three arms and is located on a single plane generally perpendicular to the longitudinal axis of the terminal body (see examiner's figure).

-- In reference to Claim(s) 3, Costello shows (cover sheet) the insertion structure 40 includes a shoulder (radius between arms and the longitudinal axis and element 47 on arms 52) construction interconnecting each of the arms, the shoulder construction further defining the push surface of each of the arms (see examiner's figure).

-- In reference to Claim(s) 4, Costello shows (cover sheet) the contact surface is a shoulder surface integral with the main body.

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- In reference to Claim(s) 5, Costello shows (cover sheet) first and second spring arms 44 extending upward from the shoulder construction 47 of the electrical terminal.
- In reference to Claim(s) 6, Costello shows (cover sheet) the insertion structure includes at least three arms(50, 58, and 59), one of the arms 58 being positioned on a side of the electrical terminal opposite the other arms.
- In reference to Claim(s) 7, Costello shows (cover sheet) the insertion structure has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

** Claim(s) 1, 3-5, and 7 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Travis (3142891).

- In reference to Claim(s) 1, Travis shows (cover sheet)
 - a) a terminal body 10 having a first end (near 26), a second end (near 14), and a longitudinal axis extending between the first and second ends,
 - b) an insertion structure (near 30) positioned between the first and second ends of the terminal body, the insertion structure including arms (the linear elements on either side of the radius that the lead line of numeral 30 depending from the terminal body and extending in a direction generally parallel to the longitudinal axis of the terminal body, each of the arms including:
 - i) a push surface (contact surface (see examiner's figure);
 - ii) an engagement surface oriented opposite the push surface (see examiner's figure).
- In reference to Claim(s) 3, Travis shows (cover sheet) the insertion structure includes a

shoulder (the radius that the lead line of numeral 30 touches) construction interconnecting each of the arms, the shoulder construction further defining the push surface of each of the arms (see examiner's figure).

- In reference to Claim(s) 4, Travis shows (cover sheet) the contact surface is a shoulder surface integral with the main body.
- In reference to Claim(s) 5, Travis shows (cover sheet) first and second spring arms 16 and 18 extending upward from the shoulder construction of the electrical terminal.
- In reference to Claim(s) 7, Travis shows (cover sheet) the insertion structure has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

** Claim(s) 8-11, 13, and 14 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Travis (3142891).

- In reference to Claim(s) 8, Travis shows (figure 1)
 - a) a first section (see examiner's figure) that receives an electrical contact;
 - b) a second section (see examiner's figure) configured for insertion into a through hole of a circuit board, and 1st and 2nd pin members (see examiner's figure),
 - c) a third section integral with the first and second section (see examiner's figure), the third section including:
 - i) a contact surface oriented generally perpendicular to the longitudinal axis of the electrical terminal, the contact surface can be configured to receive a force applied to position the electrical contact within the

through hole of the circuit board;

- ii) at least three engagement surfaces oriented opposite the contact surface (see examiner's figure), the engagement surfaces can be configured to contact the circuit board to limit the depth of insertion of the electrical terminal within the through hole of the circuit board.

-- In reference to Claim(s) 9, Travis shows the contact surface is a shoulder surface integral with the main body.

-- In reference to Claim(s) 10, Travis shows (cover sheet) the first section includes first 16 and second 18 spring arms, the first and second spring arms extending upward from the shoulder surface of the electrical terminal.

-- In reference to Claim(s) 11, Travis shows (cover sheet) a plurality of projections se extending from, and spaced apart from the third section of the electrical terminal (see examiner's figure).

-- In reference to Claim(s) 13, Travis shows (cover sheet) the engagement surfaces are located along a single plane generally perpendicular to the longitudinal axis of the electrical terminal.

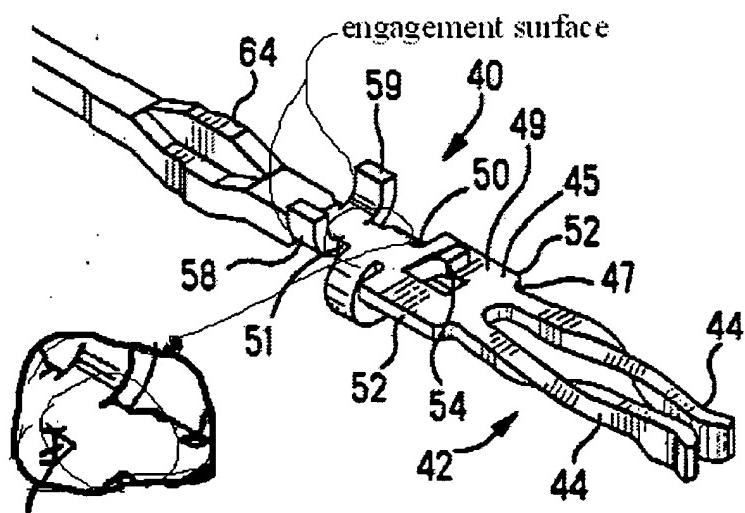
-- In reference to Claim(s) 14, Travis shows (cover sheet) the third section has a C-shaped cross-section taken perpendicular to the longitudinal axis of the electrical terminal.

** Claim(s) 8, 11, and 12 is/are rejected under 35 U.S.C. 102(b) as being anticipated by Ruehleman (3231848).

-- In reference to Claim(s) 8, Ruehleman shows (figure 7)

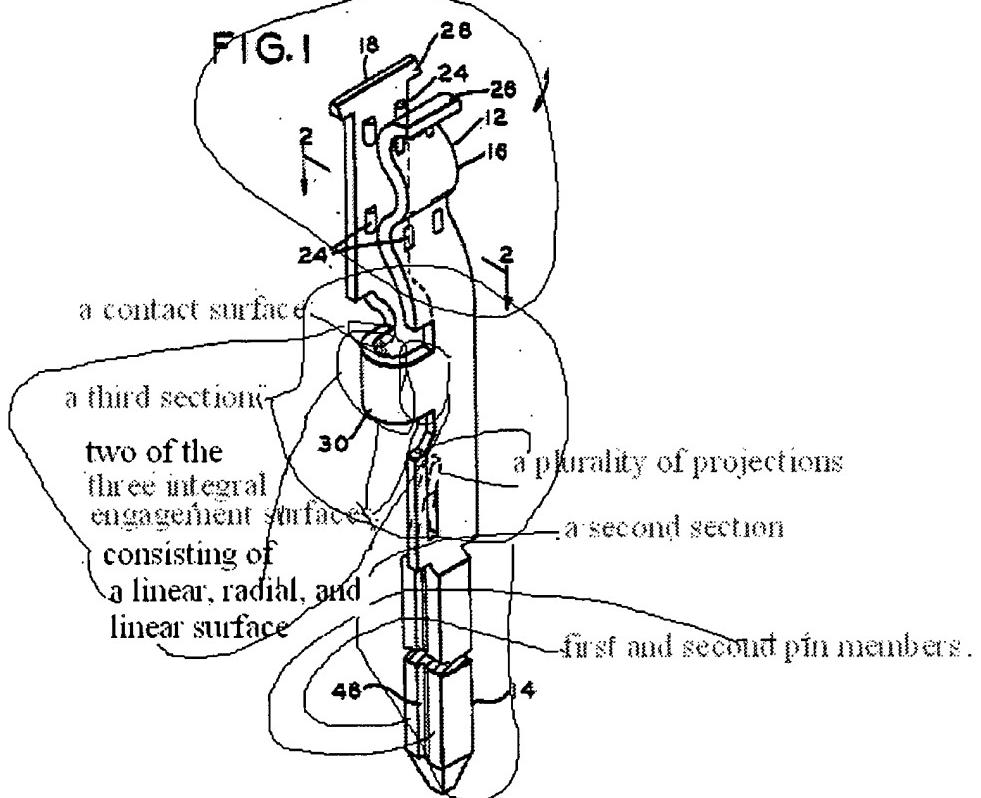
- a) a first section (see examiner's figure) that receives an electrical contact;

- b) a second section (see examiner's figure) that can be configured for insertion into a through hole of a circuit board, and with 1st and 2nd pin members (see examiner's figure),
 - c) a third section integral with the first and second section (see examiner's figure), the third section including:
 - i) a contact surface oriented generally perpendicular to the longitudinal axis of the electrical terminal, the contact surface can be configured to receive a force applied to position the electrical contact within the through hole of the circuit board (see examiner's figure);
 - ii) at least three engagement surfaces oriented opposite the contact surface (see examiner's figure), the engagement surfaces can be configured to contact the circuit board to limit the depth of insertion of the electrical terminal within the through hole of the circuit board.
- In reference to Claim(s) 11, Ruehleman shows (see examiner's figure) a plurality of projections 224 extending from, and spaced apart from the third section of the electrical terminal (see examiner's figure).
- In reference to Claim(s) 12, Ruehleman shows (figure 7) at least one of the plurality of projections 224 is located on a side of the electrical terminal opposite the other projections.

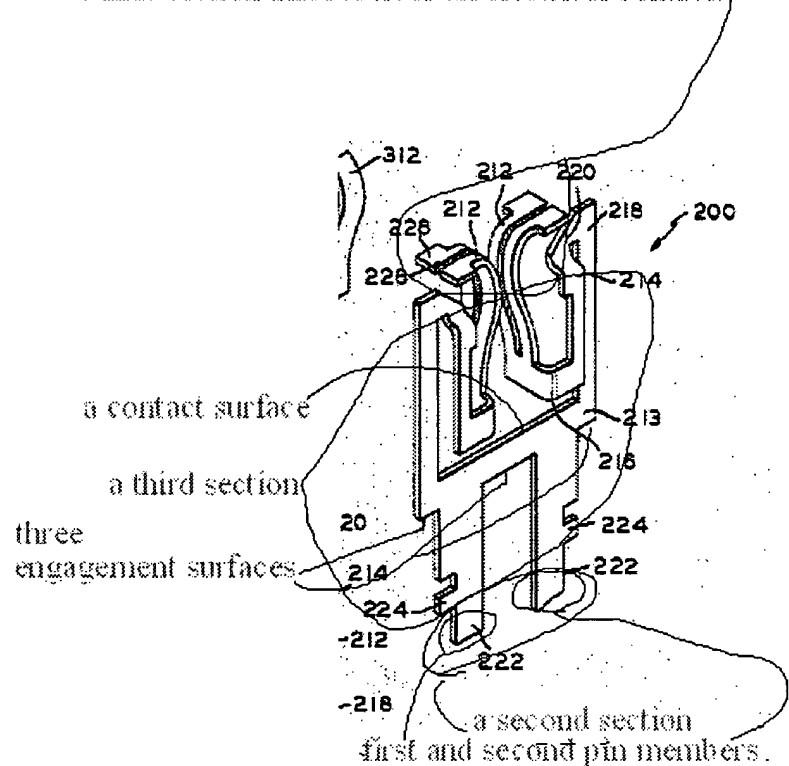


shoulder construction further defining the push surface of each of the arms

a first section that receives an electrical contact;



a first section that receives an electrical contact;



Response to Arguments

- In response to applicant's argument (page 5, line 25) concerning applicant's disclosure that "the shoulder construction wraps around the overall electrical terminal on *three of the four sides*" (*emphasis added*) is not supported by applicant's chosen word of circumscribes. As disclosed by applicant (page 6, line 1), circumscribes is defined as "to surround by a boundary" and the meaning of surround is "to extend on *all* sides" not just *three of the four sides*. (see attached definition from The American Heritage Dictionary).
- In response to applicant's argument (page 6, line 22) concerning that Costello arms 56 and 58 extend outwardly in a direction perpendicular to a longitudinal axis of the terminal 40; not parallel, the examiner disagrees because applicant's assertion is seen to imply that Costello does not show a three dimensional terminal. Costello shows the arms 56 and 58 are three dimensional and extend in all three axis of the three dimensional drawing.
- In response to applicant's argument (page 6, line 28) concerning applicant's assertion that the rejection was not clear as to which structure defines the arms is not convincing. Applicant shown the correct understanding that the arms of Costello are 56 and 58 as evident by applicant's remarks on page 6, line 22.

Further, all the claims depend directly upon independent claim 1 and the respective arms pointed out in claim 1 address each respectively dependent structure associated with the respectively dependent claim.

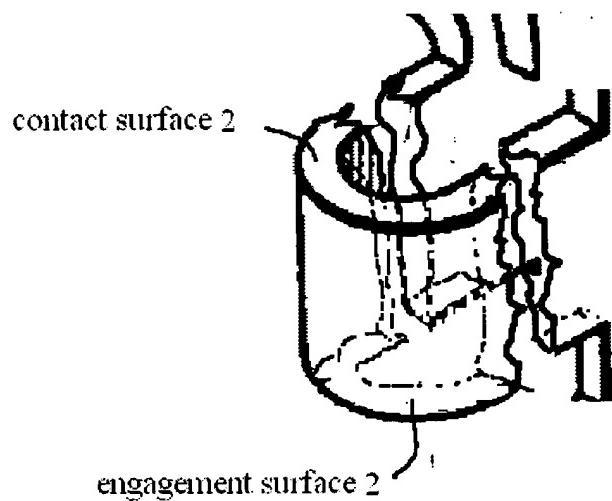
- In response to applicant's argument (page 7, line 2) concerning applicant's assertion that the "plate-like section 45 ...does not depend from an insertion structure is not convincing. Applicant defines the insertion structure on line 4 of claim 1 as being positioned between first and second

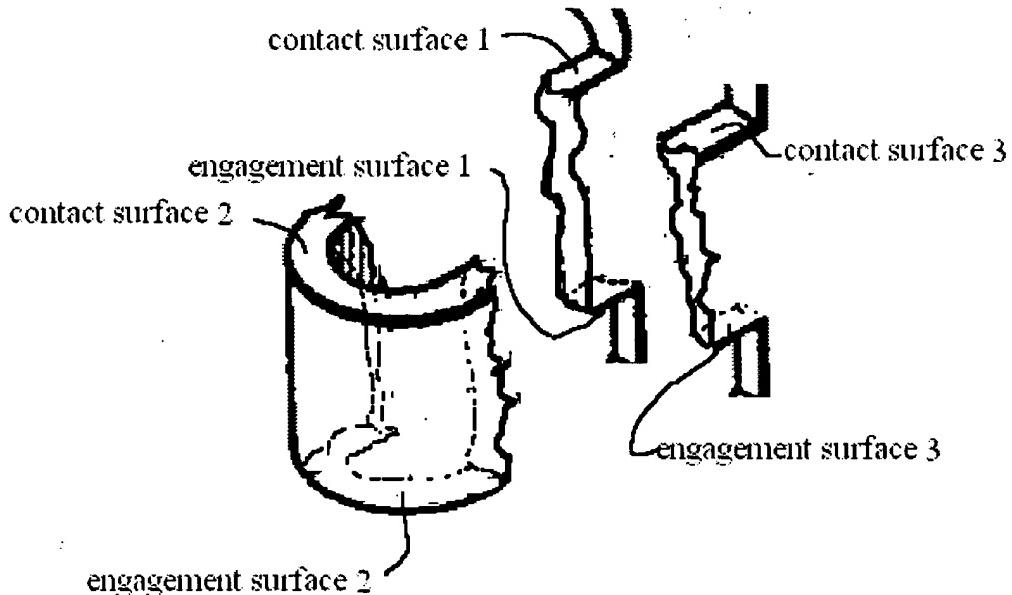
ends of the terminal body. The main body of the terminal is seen to be generally defined in the claims as containing three parts (e.g. first end, second end, and the insertion structure). This only requires that a continuous metal structure (e.g. insertion structure) to be between the first end and second end. Element 45 does depend upon the continuous metal structure because it projects from it and if the continuous metal structure was not present, the only other structure that is defined in the claim to mount Element 45 would either the first or second ends of which it is not mounted.

-- In response to applicant's argument (page 7, lines 15-20) concerning that element 30 was used to anticipate both the claimed insertion structure and the arms, the examiner disagrees. The rejection on page 5 of the office action indicates the insertion structure is near the element that is labeled with the numeral 30, not that the insertion structure is 30. The main body of the terminal is seen to be generally defined in the claims as containing three parts (e.g. first end, second end, and the insertion structure). This only requires that a continuous metal structure (e.g. insertion structure) to be between the first end and second end. Travis meets the claimed structure and makes claim 1 unpatentable.

-- In response to applicant's argument (page 8, line 1) concerning applicant's assertion that Travis does not disclose three engagement surfaces oriented opposite the contact surface the examiner disagrees. Travis shows the push contact surfaces on top in the same manner that applicant's are structurally positioned and Travis shows the engagement surfaces are in the same structural location as applicant has claimed. The following figure is provide to show that Travis does show the claimed structure. The first figure shows the first linear, the radial, and the second

linear components that contain the three surfaces and the second figure shows the three components separated so that there is space for the lead lines.





-- In response to applicant's argument (page 8, lines 20-25) concerning applicant's assertion that Ruehleman's three engagement surfaces are not for the intended use of being "configured to contact the circuit board to limit insertion of the electrical terminal, the examiner disagrees. Ruehleman shows the claim structure and can be used for the same intended purpose.

Further, it has been held a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. *Ex parte Masham*, 2 USPQ2d 1647 (1987).

Conclusion

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- Effective May 1, 2003, the United States Patent and Trademark Office has a new Commissioner for Patents address. Correspondence in patent related matters must now be addressed to:

Commissioner for Patents
P. O. Box 1450
Alexandria, VA 22313-1450

For additional information regarding the new address, see Correspondence with the United States Patent and Trademark Office, 68 Fed. Reg. 14332 (March 25, 2003).

- **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to James R. Harvey whose telephone number is 571-272-2007. The examiner can normally be reached on 8:00 A.M. To 5:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula A. Bradley can be reached on 571-272-2800 extension 33.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2800.

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- Effective **October 1, 2003**, all patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, **(703) 872-9306**, with a few exceptions *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000). Replies to Office actions including after-final amendments that are transmitted by facsimile must be directed to the central facsimile number. Unofficial correspondence such as draft proposed amendments for interviews may continue to be transmitted by facsimile to the Technology Centers. *See Fax Automation in Technology Center 1700, 1237 Off. Gaz. Pat. Office 140* (August 29, 2000).

James R. Harvey, Examiner

jrh
July 15, 2004


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